

RESEARCH / MANAGEMENT FINDINGS

"There are woods that are plain to look at, but not to look into..." ALDO LEOPOLD (1887-1948)



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Getting Bird Conservation Education into Wisconsin Schools: A Summary of Telephone Interviews with Teachers

Susan C. Gilchrist

INTRODUCTION

Since 1998, the U.S. Fish and Wildlife Service, International Association of Fish and Wildlife Agencies, non-governmental organizations, and federal, state, and provincial wildlife agencies have developed the North American Bird Conservation Initiative (NABCI). This effort links bird conservation efforts in the United States with similar efforts in Canada and Mexico with the intent of delivering "the full spectrum of bird conservation through regionally-based, biologically-driven, landscape-oriented partnerships" (NABCI 2004). As part of the NABCI, state and private conservation organizations in Wisconsin have pledged to work together under a voluntary conservation agreement, known as the Wisconsin Bird Conservation Initiative (WBCI), to effectively manage resident birds and birds that annually migrate to or through the state. WBCI goals include managing communities of birds at regional and landscape levels, keeping common birds common, conserving and restoring rare bird species, identifying and prioritizing management opportunities and needs, coordinating existing bird conservation initiatives, and promoting bird-based recreation (WBCI 2004).

The WBCI has established standing committees, including an Outreach Committee, to carry out its work. Duties of the WBCI Outreach Committee include developing educational materials and programs, drafting a statewide communication plan identifying audiences, messages, and message delivery channels, and promoting opportunities for students to be involved in bird conservation projects (WBCI 2004).

While the Outreach Committee focused on writing the communications plan, a separate subcommittee was established to work on the education portion of

outreach. With a goal of incorporating bird conservation education in every level of education—preschool through college—this Education Committee worked on developing a plan for bird education for Wisconsin. The committee identified appropriate bird education programs (Table 1) and noted gaps in available resources. In order to plan effectively, though, the Education Committee needed to know how to best deliver bird education to K-12 teachers throughout Wisconsin. To meet this need, I worked with graduate students at the University of Wisconsin-River Falls to conduct telephone interviews of Wisconsin teachers.

METHODS

Seven graduate students enrolled in an environmental education course at UW-River Falls agreed to conduct telephone interviews of teachers. Wisconsin Department of Natural Resources (DNR) staff and WBCI volunteers developed and tested interview questions and provided brief training on how to conduct the interviews. The graduate students then conducted the interviews, recorded responses on interview sheets, and summarized the data.

To ensure geographic coverage, we divided the state into four quadrants and the students selected four public school teachers at each of three levels (elementary, middle, and high school) in each quadrant. In addition, four teachers from private/parochial schools and four from home schools were included in the total. The design included 56 teachers (24 men, 32 women). Only two teachers described the community their students came from as large urban, however, so that population was not well represented in our sample. None of the teachers were first or second year teachers.

Above photo: The willow flycatcher is a neotropical migratory bird that nests in Wisconsin.

As part of the interviews, teachers were asked to rate each bird education resource, from a list of 21 resources, according to their usefulness. We then gave each resource a score derived from the sum of the number of teachers rating it “extremely useful” and “somewhat useful,” less the number rating it “not useful.” We also tallied like responses to open-ended interview questions to get a sense of agreement among respondents.

RESULTS AND DISCUSSION

Bird Education in the Curriculum

Interviewees were about evenly divided between those who already teach something about birds or bird conservation and those who do not. The main reason the teachers who do not teach about birds gave was that bird conservation does not fit with their required curriculum. Those who did teach about birds mostly did so as part of another unit.

Bird Education Resources

None of the teachers interviewed had ever used the following resources: *Songbird Blues* trunk, *Shorebird Sisters*, *One Bird–Two Habitats*, *Journey North*, Cornell Laboratory of Ornithology materials or programs, or International Migratory Bird Day materials (Figure 1). A few teachers, however, had used field guides with their classes.

According to the “usefulness” scores, the bird education resources that teachers considered **most useful** from a list of 21 are:

- Guest experts/speakers
- Support for field trips
- Videos
- A trunk/kit on birds
- An activity guide
- Posters
- Background information
- Field guides
- Workshops/training

Table 1. Some bird education resources.

RESOURCE	GRADE LEVELS	DESCRIPTION
<i>Songbird Blues: Exploring Neotropical Migratory Songbirds</i> Developed by Margaret Manning and Robert Petty in coordination with the Montana Natural History Center.	K-5	Activity trunk that includes children’s literature, puppets, a felt storycloth, tapes, videos, and a curriculum guide with background information, lesson plans, and extension activities. Eastern and western versions are available. See www.thenaturecenter.org for more information.
<i>One Bird–Two Habitats</i> Developed by the Wisconsin DNR.	6-8	Interdisciplinary curriculum unit on Neotropical migratory bird conservation consisting of an activity guide with background information, posters, and an accompanying video.
<i>Shorebird Sister Schools</i> Developed by the U.S. Fish and Wildlife Service.	K-12	On-line activity guides and traveling activity trunks with books, videos, bird identification guides, slide shows, puppets, and more. See 66.241.214.202/ on the web for more information.
<i>Journey North: A Global Study of Wildlife Migration and Seasonal Change</i> Developed by Journey North.	K-12	Internet-based program, with classroom lessons, teacher’s manual, and tips from teachers. See www.learner.org/jnorth/ for more information.
<i>International Migratory Bird Day</i> materials Developed by Partners in Flight and the U.S. Fish and Wildlife Service.	K-12	Educator’s guides with classroom activities, children’s literature, posters, and stickers. See birds.fws.gov/imbd/educators.html for more information.
Citizen Science Programs and Educator’s Resources Developed by Cornell Laboratory of Ornithology.	K-12	Citizen science programs, including “Project PigeonWatch,” “Project FeederWatch,” “Classroom FeederWatch” and “Urban Bird Studies.” Bird-oriented educational activities, games, and web resources. See www.birds.cornell.edu/LabPrograms/education/index.html for more information.

Based on these same scores, the resources that teachers thought would be **least useful** are:

- Manual for a bird festival
- Slides
- Latin American contacts

Most of the teachers seemed to think getting outside with students is not a major problem. Yet, more teachers thought they more likely would use a volunteer expert to speak to their class, rather than to lead a bird walk. If teachers had access to field guides and binoculars, they said they would use them, but only 15 said they would use these same resources monthly or more.

Dissemination of Education Materials

Responses to a short-answer question suggested teachers would prefer to obtain a new activity guide (if one were made available) by borrowing it from a resource lending library such as a Cooperative Educational Services Agency (CESA), DNR office, nature center, or university or by attending a workshop, course, or training program. Few were interested in just buying new curricular materials.

In response to an open-ended question about what delivery system/dissemination method teachers thought would work to get bird education programs out, 21 teachers recommended workshops, training, or a class or course (Figure 2). In contrast, only eight respondents suggested a program should be sent out through mail or UPS. While quite a few teachers said they could read resource materials and use them without training, most people did say that a participatory workshop was the best kind of training program. Only one teacher expressed an unwillingness to attend a training program to get bird education materials. Training could be 1-2 hours up to all day, or a course offered in the summer or evening. Workshops would be most convenient in the summer, or secondly, on an in-service day or weekend. College credit is important to some teachers, but not to others. Teachers felt it is very important that any new program be correlated to Wisconsin's academic standards.

Activity Guides

When asked which form of activity guide they would prefer, teachers expressed a preference for a traveling trunk with all materials included, an interdisciplinary unit, or a unit specifically for their subject area.

RECOMMENDATIONS

The graduate students conducting the interviews state that both they and the participating teachers overwhelmingly desired an activity guide similar to the popular *Project WILD* (Council for Environmental Education 2000) and *Project Learning Tree* (American Forest Foundation 1995) guides. Such a guide already exists for middle schools in the form of an interdisciplinary unit, which teachers said they wanted: *One Bird-Two Habitats* (Figure 3). A *Songbird Blues* trunk also already exists for the elementary level, where a trunk or kit was identified the most desired resource.



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Figure 1. Appropriate bird conservation education resources include *Songbird Blues*, *One-Bird-Two Habitats*, *Flying WILD*, and the Cornell Lab of Ornithology's citizen science projects.



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Figure 2. In a *One-Bird-Two Habitats* workshop, educators learn to use an activity teaching about forest fragmentation.



Lynn Swift

Figure 3. Trying to restore machines in this activity from *One Bird-Two Habitats*, students learn that the first rule of intelligent tinkering is to save all the parts.



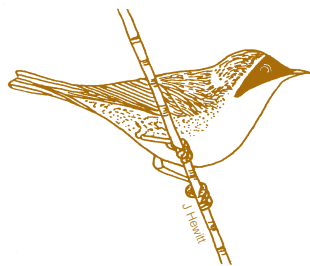
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Further dissemination of these programs appears to be consistent with the interview responses.

Teachers claimed little interest in having a manual for a school bird festival. The *Flying WILD* school bird festival manual, however, is actually an activity guide modeled after *Project WILD* and is being produced by the Council for Environmental Education, which also produces *Project WILD*, and will thus fit directly in the scope of what teachers say they want. To market *Flying WILD* in Wisconsin successfully, it will be crucial to maximize the description of this manual as an activity guide. Whatever programs and materials WBCI chooses to distribute to Wisconsin teachers, however, will need to be correlated with the state academic standards in order to be incorporated successfully into school curricula.

This study validates both the kinds of materials that have already been developed and the use of workshops as the dissemination method of choice. Yet, when asked what dissemination method would work best to deliver bird education programs to teachers, several people simply responded "Get the information out!" This response doesn't tell us how to do so, but the comment emphasizes the need for getting the materials into teachers' hands. The gap identified here is not the lack of existent resources of the desired kind, or a lack of interest in participating in workshops, but rather the marketing of the programs and materials. Teachers do not know that the resources they say they want already exist. A focused marketing campaign could help get bird conservation education into Wisconsin schools.



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